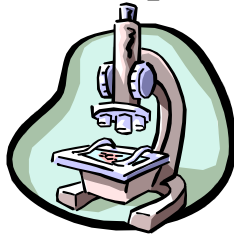


Name _____

Microscope Lab



Objectives

- To learn the parts of the microscope
- To find specimens using low and high power
- To contrast plant and animal cells

Procedure

Station A: Letter “e”

1. Draw a lower-case letter “e” in the circle labeled **Figure 1**.
2. View the slide under low power (10x).
3. Draw what you see under low power in the circle labeled **Figure 2**.
4. View the slide under the next highest power (40x).
5. Draw what you see under high power in the circle labeled **Figure 3**.

Station B: Cork

1. While looking into the microscope, move the slide to the left. Which way did the cork move? Write what happens in your lab handout.
2. Now move the slide to the right and record what happens.
3. What happens when you move the slide up? Down?

Station C: Threads

1. Focus the threads so that you can see three colors in your view.
2. Which thread is on top? In the middle? On the bottom?

Station D: Animal cell

1. Examine the animal cells in your field of view.
2. What color are the cells?
3. Draw what you see under the high power in the circle labeled **Figure 4**.

Station E: Plant cell

1. Examine the plant cells in your field of view.
2. What color are the cells?
3. Draw what you see under the high power in the circle labeled **Figure 5**.

Data

Station A: Letter “e”

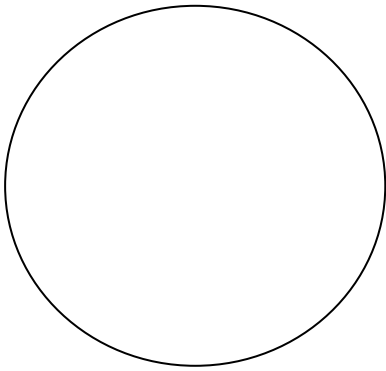


Figure 1

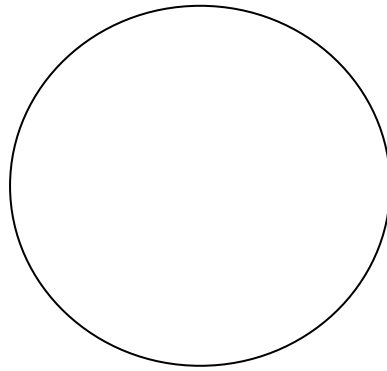


Figure 2

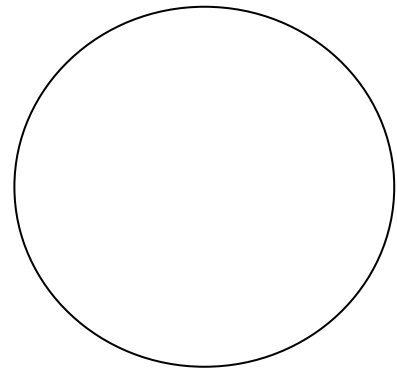


Figure 3

Station B: Cork

Which way does the cork move when you move the slide to the left?

What happens when you move the slide to the right?

When you move it up?

When you move it down?

Station C: Threads

Which thread is on top?

In the middle?

On the bottom?

Station D: Animal cell

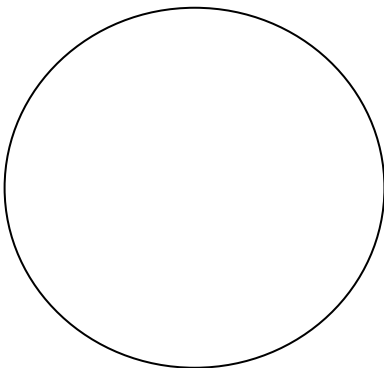


Figure 4

What color are the animal cells?

Station E: Plant cell

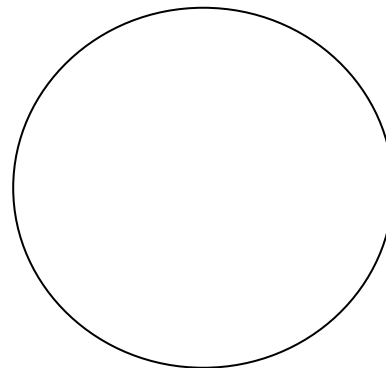


Figure 5

What color are the plant cells?

Analysis

Station A: Letter “e”

1. How does the letter “e” as seen through the microscope on low power differ from the way an “e” normally appears? (Compare Figures 1 and 2)
2. How does changing the objective lens to a higher power affect the appearance of the “e”? (Compare Figures 2 and 3)
3. If you wanted to read a newspaper under the microscope, how would you have to place the clipping on the stage?
4. Why does a specimen placed under the microscope have to be thin?

Station B: Cork

5. If you wanted a specimen to move up in your field of vision in the microscope, in which direction would you have to move the slide?

Station C: Threads

6. Can you see depth (layers) under the microscope?
7. Other than threads, give an example of how seeing depth could be helpful when using a microscope.

Stations D and E: Animal and Plant Cells

8. Why do you think the animal and plant cells were stained?
9. Do you think your cheek cells would look more like the animal cells in Figure 4 or the plant cells in Figure 5? EXPLAIN your answer (use evidence other than color).
10. Other than color, what was different between the plant and animal cells?

Conclusion:

Write three complete sentences describing what you learned from this lab. Be specific!

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